Winter \*\*

#### Flood Control Project Maintenance Levee Inspections

## **LMA District Cover Sheet**

**Spring 2018 Levee Inspection Results** 

## **Reclamation District No. 2104 Peters Pocket Tract**

	(March - May)	(June - August)	(September - November)	(December - February)
† Overall LMA Rating (Fall Only)				
,	** Non-receipt of Sumn Reports may effect o			
† SPRING INSPECTIONS: Overall maintenance deficiencies are rated				ual maintenance
FALL INSPECTIONS: The overall maintena within the attached un			ation and maintenance de tended to be an indiction	
Comments				

## **Unit Cover Sheet**

**Spring 2018 Levee Inspection Results** 

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/20/2018 - 3/20/2018			
DWR Inspector	Keith Millard			
Accompanied By	Chris Niederhauser RD 2104			

#### Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

## http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

## Levee Inspection Report By Mile - Spring 2018

## **Reclamation District No. 2104 Peters Pocket Tract**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start		Issue No.		12			
LM End		Location *		N/A			
Cotogony	Earthen L	evee		GPS La	atituc	de/Longitude	
Category				Start		End	
Item	Flood Pre	paredness &	Training		0		0
item					0		0
DWR ID	DWR_RD2104_01_s _ 2012_12						
		Comn	nent Cod	le			
		Inanaata	or Comm	ont			
		mspecii	or Comm	ieni			
District coordinates with adjacent district 2068 for flood fighting, but needs to have their staff flood fight trained.							

No Photos

LM Start		Rating **	Α	Issue No.	14			
LM End	Issue Type + Ma			Location *	N/A			
Category	Earthen Levee			GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item		s & Maintena	nce		0		0	
item	Manuals		0		0			
DWR ID	DWR_RD2	104_01_f _ 201	2_14					
		Comn	nent Cod	le				
	Inspector Comment							

District has the O+M Manual on hand.

No Photos

LM Start	Rating ** A			Issue No.		40	
LM End	Issue Type + Ma			Location *		N/A	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item		y Supplies &			0		0
iteiii	Equipmen	nt			0		0
DWR ID	DWR_RD2104_01_s _ 2012_40						
Comment Code							

No Photos

#### Inspector Comment

District has soil and sand on site, and coordinates with adjacent district 2068 for other materials.

* Location		** Rating		+ Issue Type
LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficienc
WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obso
CP · Crown		II : Unaccontable	AMM - Accontable but Monitor & Maintain	En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	0.02	Rating **	A/W	Issue No.	18		
LM End	1.45	Issue Type +	Ma	Location *	CR		
Category Earthen Levee				GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		38.3080	53°	38.295298 °	
пеш				-121.7585	57°	-121.741413 °	
DWR ID	DWR_RD2104_01_f _ 2016_18						
	Comment Code						

V9: Keep the crown roadway free of vegetation.

#### Inspector Comment



Spring 2018 - Crown road should be kept free of vegetation.

LM Start	0.17	М	Issue No.		20	
LM End	1.72	Issue Type +	Ma	Location *	CR	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End
Item	Crown Su	rface / Depres	ssions /	38.3060	52°	38.293465 °
item	Rutting		-121.7575	82 °	-121.737780°	
DWR ID	DWR_RD2104_01_f _ 2016_20					

## Comment Code

C1 : Add appropriate material and re-grade the levee to bring the crown above the design elevation.

#### Inspector Comment

Add appropriate material, re-grade and compact for proper drainage. (where needed, AND keep live stock off the crown roadway particularly during rainy weather)

No Photos

LM Start	1.20	Rating **	A/W	Issue No.		22	
LM End	1.20	Issue Type +	Ma	Location *		WS	
Category	Earthen L	GPS La	titud	e/Longitude			
Calegory				Start		End	
Item	Erosion / Bank Caving			38.2966°	15°	38.296615	0
item				-121.7453	72 °	-121.745372	0
DWR ID	DWR_RD2	104_01_f _ 201					
		_					

#### Comment Code

E2 : Schedule repair of erosion site prior to the next inspection.

#### Inspector Comment

Soil was added to restore waterside slope. Continue to monitor for erosion from cattle.

## Photo 1 of 1: SP\_2018\_RD2104\_249\_22\_20180321\_00038.jpg



This previous erosion site should be monitored for future erosion from cattle.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiency Ob: Design & System Obsolescence En: Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	1.27	1.27 Rating ** M		Issue No.		23
LM End	1.27	Issue Type +	Ма	Location *	Location * V	
Category	Earthen Levee					le/Longitude
Calegory						End
Item	Slope Sta	bility		38.29618	2°	38.296182 °
пеш						-121.744318 °
DWR ID	ID DWR_RD2104_01_f _ 2016_23					

#### Comment Code

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

## Inspector Comment

Repair the slope damaged by cows and trim up the tree limbs partially blocking the erosion site.



Spring 2018 - Trees should be trimmed and deadwood removed, and erosion from cattle repaired.

LM Start	1.44	Rating **	U	Issue No.		11
LM End	1.48	Issue Type +	Ma	Ma Location *		WS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory						End
Item	Vegetatio	n		38.2954	87°	38.294947 °
пеш				-121.7415	30°	-121.741215°
DWR ID	ID DWR RD2104 01 f 2017 11					

#### Comment Code

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

## Inspector Comment

#### Photo 1 of 1: SP\_2018\_RD2104\_249\_11\_20180305\_00001.jpg



Remove wild growth to 20 feet from crown.

LM Start	1.45	1.45 Rating ** M		Issue No.		13
LM End	4.00	Issue Type +	Ma Location *		Location *	
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Vegetatio	n		38.29529	8 °	38.310680°
пеш						-121.736174°
DWR ID	DWR ID DWR_RD2104_01_f _ 2017_13					

## Comment Code

V9: Keep the crown roadway free of vegetation.

#### Inspector Comment



Crown vegetation should be reduced to facilitate inspection and access.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	1.72	Rating **	A/W	Issue No.		15			
LM End	1.72	Issue Type +	Ma	Location *	WS				
Cotogony	evee	GPS La	atitud	le/Longitude					
Category				Start		End			
Item	Cracking			38.2934	65 °	38.293465°			
пеш				-121.737778 °		-121.737778°			
DWR ID DWR_RD2104_01_f _ 2017_15									
		Comn	nent Cod	de					
CR1 : Mor	itor and ha	ave inspected	by geote	echnical en	gine	er.			
		Inspecto	or Comm	nent					



Curved cracks in crown indicate possible slope instability on waterside slope. Cracks are 8 feet long x up to 6 inches wide x 3 feet deep. No other indications of slope instability observed. Levee toe is approx 40 feet from channel/slough edge.

LM Start	1.93	Rating **	М	Issue No.		16				
LM End	1.94	Issue Type +	Ма	Location *		WS				
Category	Earthen L	evee	GPS La	atitud	e/Longitude					
Calegory				Start		End				
Item	Erosion /	Bank Caving	38.2920	27°	38.291947°					
item		75°	-121.734453°							
DWR ID DWR_RD2104_01_s _ 2012_16										
		Comn	nent Cod	de						
E1 : Note	and monito	or erosion site								
		Inspect	or Comm	nent						



Scalloped bank erosion along slough is approaching levee toe.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	2.40	Rating **	М	Issue No.		56
LM End	2.40	Issue Type +	En	Location *		
Category	Suppleme	ental	GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UC	IP Field Study		38.29157	9°	38.291579 °
Item				-121.72615	e e	-121.726159 °
DWR ID						

## Comment Code

#### Inspector Comment

FS\_ID:41347 DS\_ID:24726 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 24-inch CMP debris on WS berm may indicate pipe

was abandoned.

FIELD\_STRUCT\_DESC: \*ABANDONED\* 24-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate on the waterside (WS) toe. [Additional Reference(s): USACE Sacramento

O&M Manual 108, April 1964, (HLM 2.60)].

FS Date: 12/4/2013



Pipe debris on WS berm.

LM Start	3.04	Rating **	M	Issue No.		57	
LM End	3.04	Issue Type +	En	Location *			
Category	Suppleme	ental		GPS La	titud	e/Longitude	
Calegory				Start		End	
Item	DWR UC	IP Field Study		38.2994	47 °	38.299447	•
iteiii				-121.7304	44 °	-121.730444	۰
DWR ID							

## Comment Code

#### Inspector Comment

FS\_ID:41834 DS\_ID:24720 EP\_NO: 14184 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Signs in disrepair and need proper markings. FIELD\_STRUCT\_DESC: 6-inch steel gas line through the levee, 3 feet

below the crown. Signs on both toes of the levee.

FS Date: 12/4/2013

## Photo 1 of 3: UCIP\_SP\_2018\_41834\_45069.jpg



Sign on WS berm.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	3.04	Rating **	М	Issue No.		57 (cont)		
LM End	3.04	Issue Type +	En	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory			Start		End			
Item	DWR UC	IP Field Study	P Field Study			38.299447 °		
пеш				-121.7304	44 °	-121.730444 °		
DWR ID								

## Comment Code

## Inspector Comment

FS\_ID:41834 DS\_ID:24720 EP\_NO: 14184

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Signs in disrepair and need proper markings. FIELD\_STRUCT\_DESC: 6-inch steel gas line through the levee, 3 feet

below the crown. Signs on both toes of the levee.

FS Date: 12/4/2013

LM Start	3.04	Rating **	М	Issue No.	57 (cont)
LM End	3.04	Issue Type +	En	Location *	



Sign post on LS toe.

Photo 3 of 3: UCIP\_SP\_2018\_41834\_45070.jpg



Broken sign marker on LS toe.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	3.12	Rating **	М	Issue No.		58
LM End	3.12	Issue Type +	En	Location *		
Category	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP Field Study		38.30060	5 °	38.300605 °
Item				-121.73044	°	-121.730440 °
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:24992 DS\_ID:24707 EP\_NO: 4412

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: Heavy vegetation at concrete headwall on LS toe and at possible outlet area on WS toe. If possible, vegetation should be cleared to check if this is an accurate location. Erosion around backside of headwall at LS toe.

FIELD\_STRUCT\_DESC: 48-inch by 48-inch reinforced concrete box drainage culvert through the levee, 17 feet below the crown. Concrete headwall on the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 3.37)].

FS Date: 12/4/2013

LM Start	3.12	Rating **	М	Issue No.	58 (cont)
LM End	3.12	Issue Type +	En	Location *	



Vegetation covering possible location for 4X4 concrete culvert at LS toe.

## Photo 2 of 3: UCIP\_SP\_2018\_24992\_45050.jpg



Vegetation covering possible location for 4X4 concrete culvert at LS toe.

## **Levee Inspection Report By Mile - Spring 2018**

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	3.12	Rating **	М	Issue No.		58 (cont)	
LM End	3.12	Issue Type +	En	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP Field Study		38.3006	05 °	38.300605	0
пеш				-121.7304	40°	-121.730440	0
DWR ID							

#### Comment Code

#### Inspector Comment

FS\_ID:24992 DS\_ID:24707 EP NO: 4412

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: Heavy vegetation at concrete headwall on LS toe and at possible outlet area on WS toe. If possible, vegetation should be cleared to check if this is an accurate location. Erosion around backside of headwall at LS toe.

FIELD\_STRUCT\_DESC: 48-inch by 48-inch reinforced concrete box drainage culvert through the levee, 17 feet below the crown. Concrete headwall on the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 3.37)].

FS Date: 12/4/2013

## Photo 3 of 3: UCIP\_SP\_2018\_24992\_45049.jpg



Some erosion on levee side of headwall at LS toe.

LM Start	3.64	Rating **	M	Issue No.		27		
LM End	4.00	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory			Start			End		
Item	Vegetatio	n		38.3066	33 °	38.310697	0	
пеш				-121.7329	75 °	-121.736157	0	
DWR ID	DWR_RD2	104_01_f _ 201	7_27					
		_						

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

## Inspector Comment

No Photos

Ш	Location	
ı	LS: Land Side	N/A: Not Applicable
ı	WS: Water Side	
Ш	CD · Crausa	

\* Locati

Rating A: Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiency Ob: Design & System Obsolescence En: Enforcement

## Levee Inspection Report By Mile - Spring 2018

## **Reclamation District No. 2104 Peters Pocket Tract**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.00	Rating **	М	Issue No.	21		
LM End	4.00	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS La	atitud	le/Longitude	
Calegory	legory					End	
Item	Slope Sta	bility		38.3106	72 °	38.310672	
пеш				-121.7361	55 °	-121.736155	
DWR ID DWR_RD2104_01_f _ 2017_21							
Comment Code							

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment



Repair landside slope eroded by livestock, and prevent future erosion.

LM Start	4.24	Rating ** M		Issue No.		10
LM End	4.72	Issue Type +	Ma	Location *		LS
Category	Earthen L	GPS Latitude/Longitude				
Calegory				Start		End
Item	Vegetatio	n		38.3131	24 °	38.318437°
item				-121.7390	72 °	121.744572 °
DWR ID	WR ID DWR_RD2104_01_s _ 2018_10					

## Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

## Inspector Comment

## Photo 1 of 1 : SP\_2018\_RD2104\_249\_10\_20180321\_00040.jpg



Landside (left) vegetation should be managed to allow inspection and access to slope and toe.

LM Start	4.24	Rating **	М	Issue No.		17
LM End	4.72	Issue Type +	Ма	Location *		WS
Category Earthen Levee			GPS Latitude/Longitude			
Category	y			Start		End
Item	Vegetatio	n		38.31312	4°	38.318437
item				-121.73907	2 °	121.744572
DWR ID DWR_RD2104_01_s _ 2018_17						

## Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

## Photo 1 of 1 : SP\_2018\_RD2104\_249\_17\_20180321\_00041.jpg



Waterside (right) vegetation should be managed to 20 feet from crown to allow inspection and access.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.31	Rating **	М	Issue No.		59
LM End	4.31	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Category	gory			Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.3139	55 °	38.313955 °
пеш					30°	-121.739930 °
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:51459 DS\_ID:24705 EP\_NO: 10182

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 12/06/2016 Crossing has been downgraded from "Urgent" to "Non-Urgent" no signs of leaks observed along pipe alignment (limited inspection on WS toe). According to LMA representative, this crossing was replaced 6 years ago (2010) at WS concrete apron. Recommend conducting internal inspection of pipe through the levee and LS to determine pipe integrity. (O. Magana - DWR UCIP)12/04/2013 Vegetation and soil buildup throughout pipe preventing flapgate from closing. Remove vegetation to allow gate to close properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. 36-inch concrete standpipe on the landside (LS) toe. Flap gate on the waterside (WS) toe. Two corrugated metal cutoff walls installed. (24-inch pipe [HLM 4.65] authorized under Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 4.65), Drawing No. 50-04-3379].

FS Date: 12/6/2016

LM Start	4.31	Rating **	М	Issue No.	59 (cont)
LM End	4.31	Issue Type +	Ma	Location *	

## Photo 1 of 3: UCIP\_SP\_2018\_51459\_45062.jpg



CMP pipe and flapgate off WS toe.

#### Photo 2 of 3: UCIP\_SP\_2018\_51459\_45061.jpg



36-inch concrete riser on LS toe at channel.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.31	Rating **	М	Issue No.		59 (cont)
LM End	4.31	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UC	P LMA Respo	onsibility	38.31395	5°	38.313955°
пеш				-121.73993	o°	-121.739930°
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:51459 DS\_ID:24705 EP\_NO: 10182

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 12/06/2016 Crossing has been downgraded from "Urgent" to "Non-Urgent" no signs of leaks observed along pipe alignment (limited inspection on WS toe). According to LMA representative, this crossing was replaced 6 years ago (2010) at WS concrete apron. Recommend conducting internal inspection of pipe through the levee and LS to determine pipe integrity. (O. Magana - DWR UCIP)12/04/2013 Vegetation and soil buildup throughout pipe preventing flapgate from closing. Remove vegetation to allow gate to close properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. 36-inch concrete standpipe on the landside (LS) toe. Flap gate on the waterside (WS) toe. Two corrugated metal cutoff walls installed. (24-inch pipe [HLM 4.65] authorized under Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 4.65), Drawing No. 50-04-3379].

FS Date: 12/6/2016

## Photo 3 of 3: UCIP\_SP\_2018\_51459\_45060.jpg



36-inch concrete riser with vegetation buildup inside.

LM Start	4.57	Rating **	М	Issue No.		25	
LM End	4.65	Issue Type +	Ma	Location *		CR	
Category Earthen Levee			GPS Latitude/Longitude				
				Start		End	
Item		rface / Depres	ssions /	38.316984°		38.317904	0
пеш	Rutting			-121.7427	51 °	-121.743461	0
DWR ID	104_01_s _ 201						
Comment Code							

C2: Repair depressions or ruts in the crown or slope.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.65	Rating **	М	Issue No.		60
LM End	4.65	Issue Type +	En	Location *		
Category Supplemental			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UC	IP Field Study		38.31794	1°	38.317941 °
Item				-121.74350	3°	-121.743503°
DWR ID						

## Comment Code

## Inspector Comment

FS\_ID:25003 DS\_ID:24704 EP\_NO: 10182

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Sign on WS toe needs repari.

FIELD\_STRUCT\_DESC: 8-inch steel gas line through the levee, at the high elevation. Signs on both toes of the levee. (Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, Drawing No. 50-04-3379].

FS Date: 12/4/2013

LM Start	4.65	Rating **	М	Issue No.	60 (cont)
LM End	4.65	Issue Type +	En	Location *	

## Photo 1 of 2: UCIP\_SP\_2018\_25003\_45081.jpg



Gasline marker on LS toe.

## Photo 2 of 2: UCIP\_SP\_2018\_25003\_45080.jpg



Sign pole on WS toe missing sign.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.67	Rating **	М	Issue No.		61
LM End	4.67	Issue Type +	En	Location *		
Category	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP Field Study		38.31811	9°	38.318119°
пеш				-121.74373	o°	-121.743730°
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:25005 DS\_ID:24703 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Good candidate for video inspection.

FIELD\_STRUCT\_DESC: 18-inch steel irrigation pipe through the levee, 13.5 feet below the crown. Pump on pile structure in the stream. Slide gate in a 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. Two cutoff walls. Concrete U-shaped headwall and air vent at the landside (LS) toe. Electrical conduit through the levee at the same location. [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 5.06),

Drawing No. 50-04-3379]. FS Date: 12/4/2013

LM Start	4.67	Rating **	М	Issue No.	61 (cont)
LM End	4.67	Issue Type +	En	Location *	

## Photo 1 of 2 : UCIP\_SP\_2018\_25005\_45083.jpg



Concrete headwall on LS toe at irrigation ditch.

## Photo 2 of 2: UCIP\_SP\_2018\_25005\_45082.jpg



Slide gate in CMP riser on WS slope with pump on pier in background.

## **Levee Inspection Report By Mile - Spring 2018**

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.72	Rating **	М	Issue No.		62	
LM End	4.72	Issue Type +	En	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory				Start		End	
Item	DWR UC	IP Field Study		38.3184	32 °	38.318432 °	
пеш				-121.7445	40 °	-121.744540 °	
DWR ID							

# Comment Code

#### Inspector Comment

FS\_ID:25006 DS\_ID:24702 EP\_NO: 10182

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Minor erosion of base under headwall on WS toe. Heavy corrosion of pipe at WS toe. Further evaluation of pipe integrity

needed.

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Concrete U-shaped headwalls on both ends. Two corrugated metal cutoff walls. Flap gate on the waterside (WS) end. (Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional

Reference(s): DWR Levee Log, 2006].

FS Date: 12/4/2013

LM Start	4.72	Rating **	М	Issue No.	62 (cont)
LM End	4.72	Issue Type +	En	Location *	

## Photo 1 of 3: UCIP\_SP\_2018\_25006\_45086.jpg



Concrete U shaped headwall on WS toe.

## Photo 2 of 3: UCIP\_SP\_2018\_25006\_45085.jpg



Concrete U shaped headwall on LS toe.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.72	Rating **	М	Issue No.		62 (cont)
LM End	4.72	Issue Type +	En	Location *		
Category	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP Field Study		38.31843	2 °	38.318432
пеш				-121.74454	o°	-121.744540 °
DWR ID						

## Comment Code

## Inspector Comment

FS\_ID:25006 DS\_ID:24702 EP\_NO: 10182

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Minor erosion of base under headwall on WS toe. Heavy corrosion of pipe at WS toe. Further evaluation of pipe integrity

needed.

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Concrete U-shaped headwalls on both ends. Two corrugated metal cutoff walls. Flap gate on the waterside (WS) end. (Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional

Reference(s): DWR Levee Log, 2006].

FS Date: 12/4/2013



Concrete U shaped headwall on LS toe.

LM Start	4.72	Rating **	M	Issue No.		19				
LM End	6.16	6 Issue Type + Ma Location		Location *		CR				
Category Earthen Levee				GPS Latitude/Longitude						
Calegory				Start		End				
Item	Vegetatio	n		38.3184	37°	38.318179	٥			
iteiii				-121.7445	72 °	-121.758200	٥			
DWR ID	104_01_s _ 201	8_19								
	0									

#### Comment Code

V9: Keep the crown roadway free of vegetation.

## Inspector Comment

No Photos

* Location		** Rating		+ Issue Type
LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR · Crown		II · I Inaccentable	A/W · Acceptable but Monitor & Maintain	En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## **Reclamation District No. 2104 Peters Pocket Tract**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	4.96	Rating **	U	Issue No.		24
LM End	4.96	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS L	atitud	e/Longitude
Calegory				Start		End
Item	Slope Sta	bility		38.3203	82°	38.320382 °
пеш				-121.748155 °		-121.748155 °
DWR ID DWR_RD2104_01_f _ 2017_24						
		Comn	nent Cod	le		
S1 : Repai	r slope ins	tability.				
		Inspecto	or Comm	nent		



Landside levee slope has slumped leaving a 2-foot vertical scarp at the shoulder. Site should be repaired.

LM Start	5.04	Rating **	М	Issue No.		41	
LM End	5.04	Issue Type +	Ma	Location *		LS	
Cotogon Earthen Levee				GPS Latitude/Longitude			
Category			Start		End		
Item	Erosion / Bank Caving			38.32158	32°	38.321582 °	
пеш				-121.74854	46 °	-121.748546 °	
DWR ID	DWR_RD2	104_01_s _ 201	2_41				
Comment Code							
E1 : Note and monitor erosion site.							

Inspector Comment

Note and monitor the erosion site.

No Photos

LM Start	5.07	Rating **	М	Issue No.		55		
LM End	5.14	Issue Type +	Ма	Location *		LS		
Category Earthen Levee				GPS La	atitud	le/Longitude		
Category				Start		End		
Item	Erosion /	Bank Caving		38.3218	83°	38.322872	0	
item	item				27°	-121.748700	0	
DWR ID	WR ID DWR_RD2104_01_s _ 2013_55							
	Comment Code							

E1 : Note and monitor erosion site.

Inspector Comment

Livestock are causing erosion and slumping at landside levee shoulder. Access should be prevented. Site should be monitored.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	5.09	Rating **	U	Issue No.		63
LM End	5.09	Issue Type +	En	Location *		
Category				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UC	IP Field Study		38.32221	5°	38.322215
пеш				-121.74841	8 °	-121.748418
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:51460 DS\_ID:24701 EP\_NO: 10182 Repair Type: Urgent Crossing Status: Found

LM End

5.09

UCIP Comments: 12/06/2016 same as last inspection--pipe remains "Urgent" CMP shows holes through wall and concrete headwall is undermined. Need to contact owner. Owner will need to work with the CVFPB to comply with Title 23. (O. Magana - DWR UCIP)12/04/2013 Footing under headwall on WS toe severely undermined. Pipe rusted heavily with holes at WS and may need replacement. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Two cutoff walls. Concrete U-shaped headwalls on both ends. Flap gate on the waterside (WS). (24-inch pipe [HLM 5.50] authorized under Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 5.5), listed as a 12-inch pipe, Drawing No. 50-04-3379, listed as an 18-inch pipe]. FS Date: 12/6/2016

LM Start 5.09 Rating \*\* U Issue No. 63 (cont)

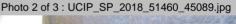
En

Location \*

Issue Type +



Concrete U-shaped headwall on WS toe. Note erosion scarp around headwall.





Headwall undermined on WS toe.

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	5.09	Rating **	U	Issue No.		63 (cont)
LM End	5.09	Issue Type +	En	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory	Category		Start		End	
Item	DWR UC	IP Field Study		38.32221	5 °	38.322215
пеш				-121.74841	8 °	-121.748418
DWR ID						

## Comment Code

#### Inspector Comment

FS\_ID:51460 DS\_ID:24701 EP\_NO: 10182 Repair Type: Urgent Crossing Status: Found

UCIP Comments: 12/06/2016 same as last inspection--pipe remains "Urgent" CMP shows holes through wall and concrete headwall is undermined. Need to contact owner. Owner will need to work with the CVFPB to comply with Title 23. (O. Magana - DWR UCIP)12/04/2013 Footing under headwall on WS toe severely undermined. Pipe rusted heavily with holes at WS and may need replacement. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13 feet below the crown. Two cutoff walls. Concrete U-shaped headwalls on both ends. Flap gate on the waterside (WS). (24-inch pipe [HLM 5.50] authorized under Automatic Board Order (ABO) issued as Permit No. 10182, 1974 - Julia Trust Machado). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, (HLM 5.5), listed as a 12-inch pipe, Drawing No. 50-04-3379, listed as an 18-inch pipe]. FS Date: 12/6/2016

Photo 3 of 3: UCIP\_SP\_2018\_51460\_45088.jpg



Corosion through pipe with holes on WS toe.

LM Start	5.35	Rating **	М	Issue No.		33	
LM End	5.36	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Erosion / Bank Caving			38.323595°		38.323730°		
пеш				-121.7522	95 °	-121.752430 °	
DWR ID DWR_RD2104_01_s _ 2012_33							
Comment Code							

E1: Note and monitor erosion site.

Inspector Comment

Note and monitor the erosion site.

No Photos

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

## Levee Inspection Report By Mile - Spring 2018

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	6.84	Rating **	U	Issue No.		64
LM End	6.84	Issue Type +	En	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UC	IP Field Study		38.30840	4 °	38.308404°
пеш				-121.75858	5°	-121.758585 °
DWR ID						

#### Comment Code

#### Inspector Comment

FS ID:51461 DS\_ID:24699 EP NO: 10184 Repair Type: Urgent

Crossing Status: Indicator Found

UCIP Comments: 12/06/2016 No indicators were found. According to LMA representative, the gas line has been abandoned and markers have been removed about 10-15 years ago. Solano County was performing work on the LS toe approximately 700 feet from LS toe and according to their underground service alert (USA) survey completed for their construction site no PGE line was identified. Need to contact owner to determine abandoned as-builts for 8-inch line. (O. Magana -DWR UCIP)12/04/2013 Pump station visible to north on LS toe. Good indicator of location. Need PG+E to mark pipe location. (W. Wylie DWR UCIP)

FIELD\_STRUCT\_DESC: 8-inch iron gas line through the levee, 2 feet below the crown. (8-inch gas line authorized under Automatic Board Order (ABO) issued as Permit No. 10184, 1974 - Pacific Gas and Electric Company [PG&E]. 8-inch gas line first referenced in the USACE O&M as-built drawings from 1956). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, Drawing No. 50-04-3379A, Sheet 3379/2, Page 2 of 7, (Station 82+30)].

FS Date: 12/6/2016

LM Start	6.84	Rating **	U	Issue No.	64 (cont)
LM End	6.84	Issue Type +	En	Location *	

# Photo 1 of 3: UCIP\_SP\_2018\_51461\_76913.jpg



No signs present at ramp to enter RD2104.

## Photo 2 of 3: UCIP\_SP\_2018\_51461\_76914.jpg



No signs present of gas line.

## **Levee Inspection Report By Mile - Spring 2018**

## Reclamation District No. 2104 Peters Pocket Tract

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cache Slough/Unit No. 02 Haas Slough	Left	6.85	03/20/2018 03/20/2018	Keith Millard

LM Start	6.84	Rating **	U	Issue No.		64 (cont)
LM End	6.84	Issue Type +	En	Location *		
Category Supplemental		GPS Latitude/Longitude				
Calegory		Start		End		
DWR UCIP Field Study		38.30840	4 °	38.308404°		
пеш				-121.75858	5 °	-121.758585 °
DWR ID						

## Comment Code

#### Inspector Comment

FS ID:51461 DS\_ID:24699 EP NO: 10184 Repair Type: Urgent

Crossing Status: Indicator Found

UCIP Comments: 12/06/2016 No indicators were found. According to LMA representative, the gas line has been abandoned and markers have been removed about 10-15 years ago. Solano County was performing work on the LS toe approximately 700 feet from LS toe and according to their underground service alert (USA) survey completed for their construction site no PGE line was identified. Need to contact owner to determine abandoned as-builts for 8-inch line. (O. Magana -DWR UCIP)12/04/2013 Pump station visible to north on LS toe. Good indicator of location. Need PG+E to mark pipe location. (W. Wylie DWR UCIP)

FIELD\_STRUCT\_DESC: 8-inch iron gas line through the levee, 2 feet below the crown. (8-inch gas line authorized under Automatic Board Order (ABO) issued as Permit No. 10184, 1974 - Pacific Gas and Electric Company [PG&E]. 8-inch gas line first referenced in the USACE O&M as-built drawings from 1956). [Additional Reference(s): DWR Levee Log, 2006. USACE Sacramento O&M Manual 108, April 1964, Drawing No. 50-04-3379A, Sheet 3379/2, Page 2 of 7, (Station 82+30)].

FS Date: 12/6/2016

## Photo 3 of 3: UCIP\_SP\_2018\_51461\_76915.jpg



Photo of where the line is estimated to cross on LS.